CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER NO. 77-19

WASTE DISCHARGE REQUIREMENTS FOR:

CITY OF SOUTH SAN FRANCISCO
OYSTER POINT MARINA
SAN MATEO COUNTY

The California Regional Water Quality Control Board, San Francisco Bay Region, (hereinafter called the Board) finds that:

1. City of South San Francisco, (hereinafter called the discharger) submitted a report of waste discharge dated December 27, 1976.

2. The City of South San Francisco proposes to dredge approximately 36,500 cubic yards of mud from the existing Oyster Point Marina in South San Francisco in order to deepen the basin to handle larger boats and reduce future maintenance dredging. The City also proposes to expand the existing marina into a new East Basin to provide additional berthing. This will necessitate the dredging of approximately 44,100 cubic yards out of this area. All dredging will be performed by clamshell dredge over a total of 29 acres.

3. The material to be dredged from the basins will be spread and compacted over the adjacent refuse landfill to provide an impermeable seal over this area. The dredge spoil will also be utilized for leachate control facilities to be constructed along portions of the shoreline and along the westerly drainage channel. Approximately 23,000 cubic yards of the dredged material will be used for leachate control, and the remaining 57,600 cubic yards will be placed and contained on the landfill area with no return flow to San Francisco Bay. The proposed development and disposal areas are shown on Attachment A and B, incorporated herein and made part of this Order.

4. The City of South San Francisco has prepared a final environmental impact report dated February 1975 in accordance with the California Environmental Quality Act (Public Resources Code Section 2100 et seq.).

5. The project as approved by the City of South San Francisco will have the following adverse effect on the environment:

   1. The dredging and disposal of dredge spoils will temporarily degrade water quality.

   2. The operation and management of the Marina could degrade water quality within the Marina.

6. The Discharge Prohibitions, Dredging Specifications, Water Quality Limitations and provisions of this Order mitigate or avoid the adverse environmental impacts of this project.

7. The Board, in April 1975, adopted a Water Quality Control Plan for the San Francisco Bay Basin. The Plan contains water quality objectives for San Francisco Bay.

8. The beneficial uses of Oyster Point Marina and contiguous waters of San Francisco Bay are:

   a. Recreation
   b. Fish migration and habitat
   c. Habitat and resting for waterfowl and migratory birds
   d. Industrial water supply
   e. Esthetic enjoyment
   f. Navigation
   g. Shellfish propagation and harvesting for human consumption

9. The Board has notified the discharger and interested agencies and persons of its intent to prescribe waste discharge requirements for the discharge and has provided them with an opportunity for a public hearing and an opportunity to submit their written views and recommendations.

10. The Board, in a public meeting, heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED, that the City of South San Francisco in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder shall comply with the following:

A. Prohibitions

1. The discharge of sewage or other wastes from marina facilities or vessels therein to waters of the State is prohibited.

2. The application of copper or other conservative toxicants within the marina to control growth of algae or aquatic plants is prohibited.

3. The discharge of return flow from dredge spoils placed on the land fill area above the mean higher high water is prohibited.

B. Dredging Specifications

1. The dredging or disposal of dredge spoils shall not cause:

   a. Floating, suspended, or deposited macroscopic particulate matter or foam in waters of the State at any place more than 100 feet from the dredge or point of discharge of dredge spoils.

   b. Alteration of apparent color beyond present natural background levels in waters of the State at any place more than 100 feet from the dredge or point of discharge of dredge spoils.

   c. Visible floating, suspended, or deposited oil or other products of petroleum origin in waters of the State at any place;

   d. Waters of the State to exceed the following limits of quality at any point:

Dissolved Oxygen	5.0 mg/l minimum When natural factors cause lesser concentrations, than the dredging or disposal of dredge spoils shall not cause further reduction in the concentration of dissolved oxygen.
pH	A variation from natural ambient pH by more than 0.2 pH units.

C. Water Quality Limitations

1. Adequate circulation and mixing, or other methods of water quality management, shall be provided so as to maintain the following levels of water quality at all points within the Oyster Point Marina:

a.	Dissolved Oxygen	5.0 mg/l minimum. Annual median - 80% saturation
b.	pH	Variation from ambient pH within the adjacent waters of the San Francisco Bay by no more than 0.5 pH units.
c.	Chlorophyll "a"	Increase concentration above levels in the adjacent portion of the San Francisco Bay by no more than 10 percent.

d. No visible, floating, suspended or deposited oil or other products of petroleum origin.

2. Water quality within Oyster Point Marina shall be managed so as to prevent the presence of toxic or other deleterious substances in concentrations or quantities which will cause deleterious effects on aquatic biota, wildlife, or waterfowl, or which render any of these unfit for human consumption either at levels created in the receiving waters or as a result of biological concentration.

D. Provisions

1. The disposal of dredge spoils shall not create a nuisance as defined in Section 13050(m) of the California Water Code.

2. All pumpout facilities for the removal of sewage from vessel retention devices shall be constructed and maintained in accordance with the standards set forth in Sections 2815 - 2829 of the California Administrative Code.

3. To ensure compliance with Section C.1, C.2, and D.2 of this Order the discharger shall submit a water quality management plan acceptable to the Executive Officer no later than July 1, 1977.

4. Dredging operations shall cease immediately whenever violations of requirements are detected by the self-monitoring program and operations shall not resume until alternative methods of compliance are provided.

5. The discharger shall comply with all Prohibitions and Dredging Specifications of this Order upon commencement of dredging operations and comply with the Water Quality Limitations upon completion of the Marina.

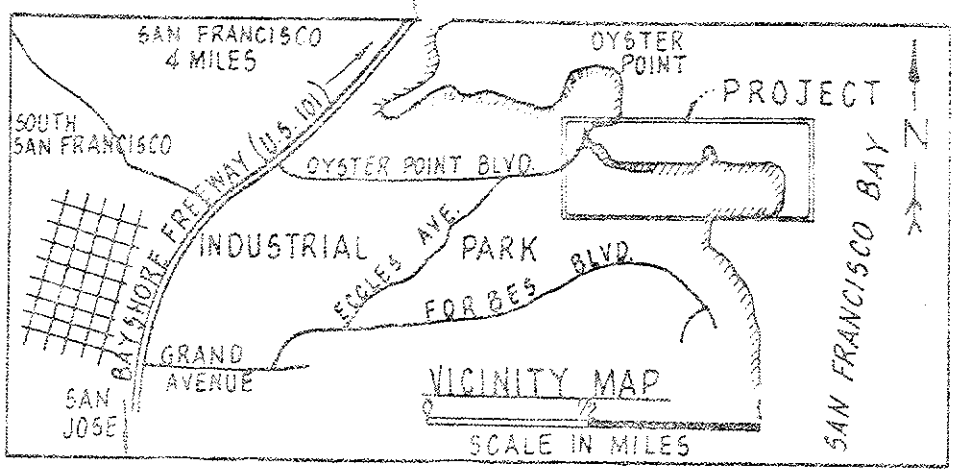
6. This Board requires the discharger to file technical reports on self-monitoring work performed according to detailed specifications developed pursuant to the Regional Board's Resolution No. 73-16.

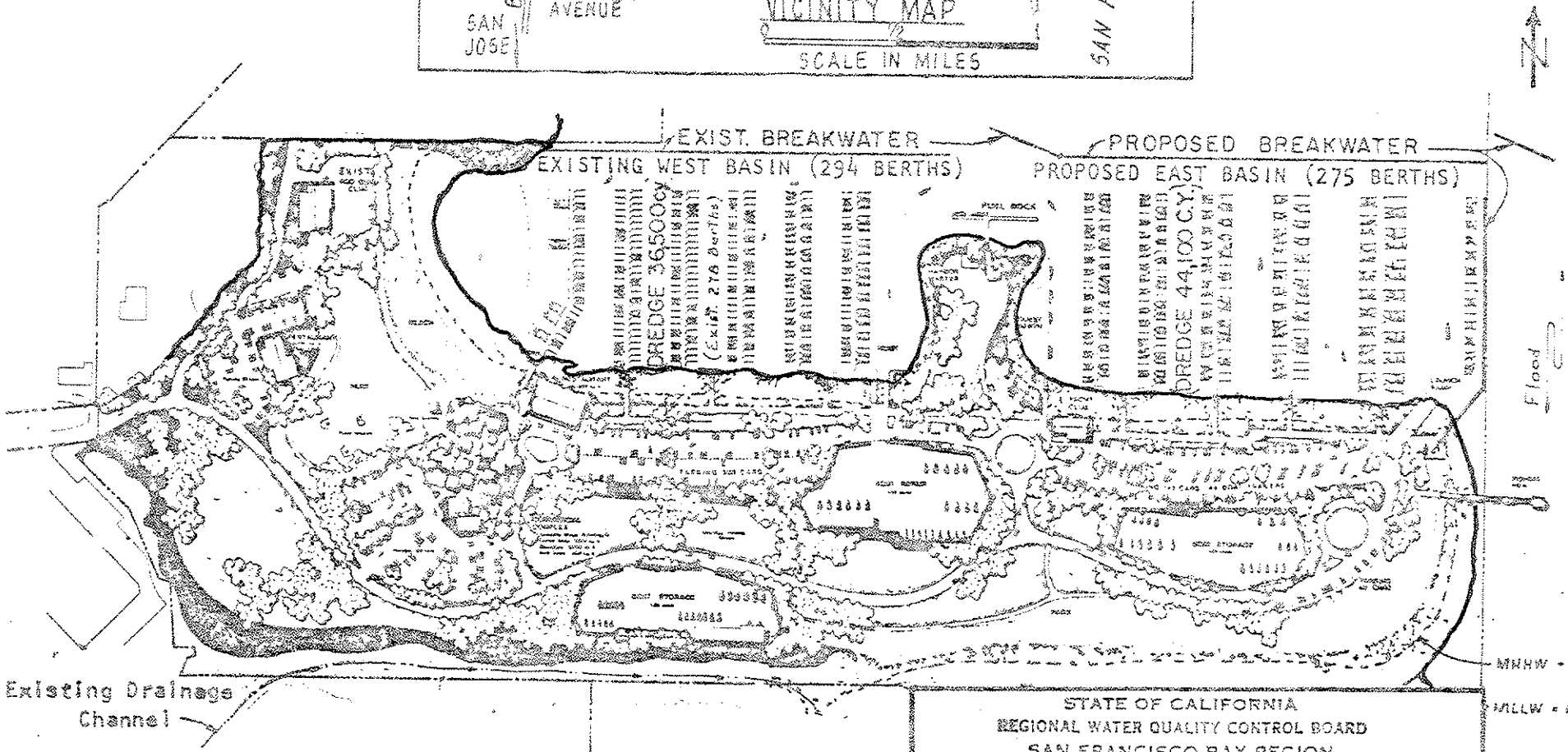
7. This Order includes items numbered 1, 4, 5, 8, and 10 of the attached "Standard Provisions," dated November 20, 1974.

I, Fred H. Dierker, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on March 15, 1977.

FRED H. DIERKER
Executive Officer

Attachments:
Map - A
Standard Provisions 11/20/74
Self-Monitoring Program
California Administrative Code 2815-2829





SITE PLAN

0 200 400 600

SCALE IN FEET

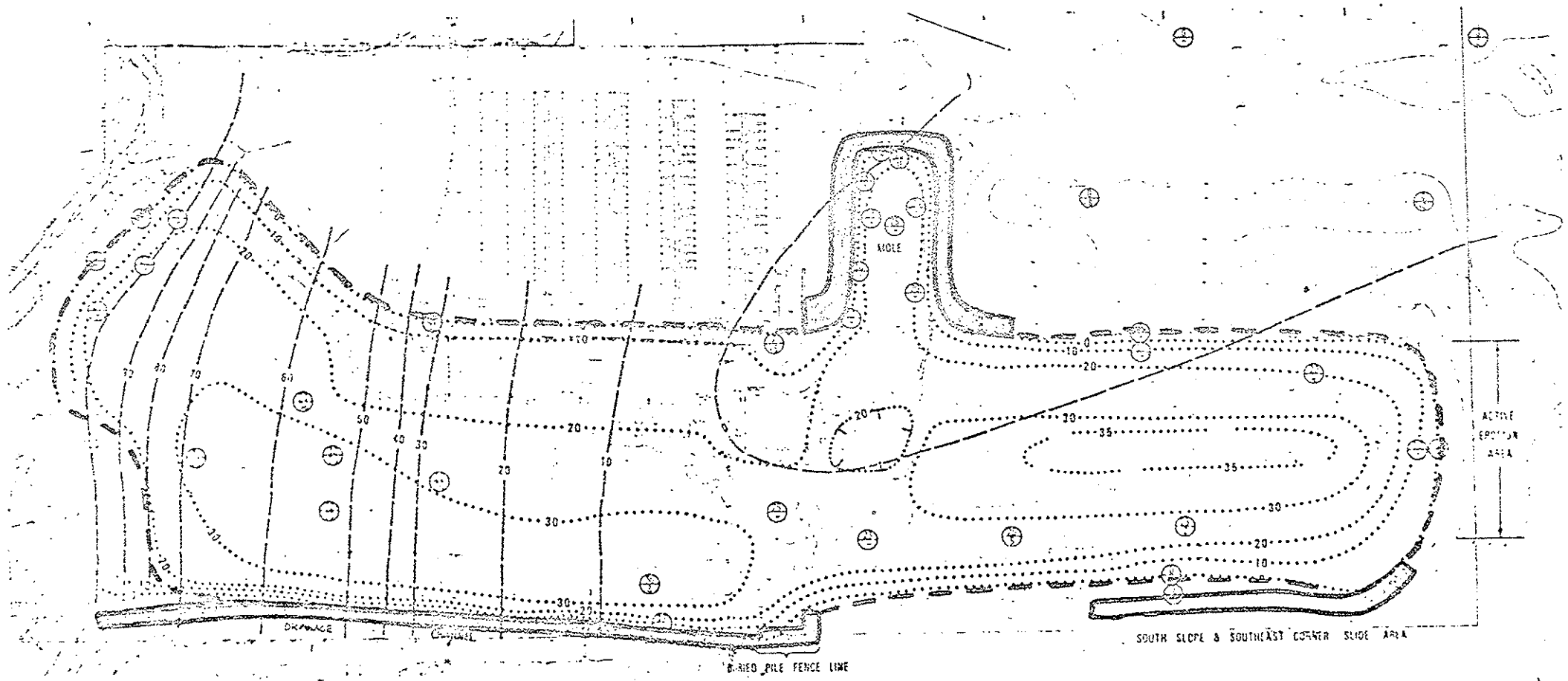
STATE OF CALIFORNIA
REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ATTACHMENT A ORDER NO. 77-19

WASTE DISCHARGE REQUIREMENTS FOR

CITY OF SOUTH SAN FRANCISCO

OYSTER POINT MARINA



LEGEND:

20 ESTIMATED THICKNESS OF RUBBISH (FEET)

40 ESTIMATED ELEVATION OF BASE OF BAY MUD (FEET)

APPROXIMATE RUBBISH THICKNESS (FEET) / ELEVATION OF BASE OF BAY MUD (FEET) } AT BORING LOCATIONS

LEACHATE CONTROL AREA

LAND FILL AREA

0 100 200 300 400 500

Scale in Feet

STATE OF CALIFORNIA
REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ATTACHMENT B ORDER NO. 77-19

WASTE DISCHARGE REQUIREMENTS FOR

CITY OF SOUTH SAN FRANCISCO

OYSTER POINT MARINA

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER NO. 77-19

SELF-MONITORING PROGRAM FOR:

CITY OF SOUTH SAN FRANCISCO
OYSTER POINT MARINA
SAN MATEO COUNTY

A. GENERAL

Reporting responsibilities of waste dischargers are specified in Sections 13225(a), 13267(b), 13268, 13383, and 13387(b) of the California Water Code and this Regional Board's Resolution No. 73-16.

The principal purposes of a monitoring program by a waste discharger, also referred to as a self-monitoring program, are:

1. To document compliance with waste discharge requirements and prohibitions established by this Regional Board;

2. To facilitate self-policying by the waste discharger in the prevention and abatement of pollution arising from waste discharge;

3. To develop or assist in the development of effluent or other limitations, discharge prohibitions, national standards of performance, pretreatment and toxicity standards, and other standards; and,

4. To prepare water and wastewater quality inventories.

B. DESCRIPTION OF SAMPLING STATIONS AND SCHEDULE OF SAMPLING, ANALYSES AND OBSERVATIONS

I. Receiving Water

a. Dredge area

Station	Description
C-1-DR	At a point located in the visible wastefield resulting from the dredging activity, and within 20 feet downcurrent from the point of dredging.
C-2-DR	At a point located in the visible wastefield resulting from the dredging activity, and approximately 120 feet downcurrent from the dredge.

Station	Description
C-3-DR	At a point located in the visible wastefield resulting from the dredging activity and approximately 300 feet downcurrent from the dredge.
C-R-DR	At a point located at least 1000 feet upcurrent from the dredge and not in the visible wastefield.

b. Dredge spoils disposal area

Station	Description
C-1-DlS	At a point located in the visible wastefield resulting from the dredge spoils disposal activity, and within 20 feet downcurrent from the point of disposal.
C-2-DlS	At a point located in the visible wastefield resulting from the dredge spoils disposal activity, and approximately 120 feet downcurrent from the point of disposal.
C-3-DlS	At a point located in the visible wastefield resulting from the dredge spoils disposal activity and approximately 300 feet downcurrent from the point of disposal
C-R-DlS	At a point located at least 1000 feet upcurrent from the dredge spoils disposal activity and not in the visible wastefield.
Note: 1.	A sketch of the limit of each visible wastefield shall be part of the map or photograph which includes station locations for each sampling day.

Station	Type of Sample & Frequency	Analyses	Unit
All C Stations	Grab samples shall be taken at periods of slack tide when performing dredging or dredge spoils disposal operations and collected weekly	Dissolved Oxygen	mg/l
		Dissolved Sulfide*	mg/l
		Total Sulfide*	mg/l
		Temperature	^{o}C
		pH (electrometric)	units
		Turbidity	JTU
		Apparent Color	color units
		Standard Observations**	

*To be performed if DO $\leq$ 5.0 ppm.

**Standard Observations, including:

a. Floating and suspended materials of waste origin, (to include oil, grease, algae, and other macroscopic particulate matter) presence or absence, source, and size of affected area.

b. Discoloration and turbidity: description of color, source, and size of affected area.

c. Odor: presence or absence, characterization, source, and distance of travel.

d. Time and height of low tides corrected to nearest location for the sampling date and time of sample and collection.

e. Water and sampling depths.

II. Land Observations

Station	Description
L-1 thru L-'n'	Located along the perimeter levee of the land impoundment facility at equidistant intervals not to exceed 400 feet. (A sketch showing the location of these stations will accompany each report.)

Type of Sample and Frequency	Observation and Analyses
Observations, weekly throughout the project duration.	All standard observations as follows:

(1) Determine height of the freeboard at lowest point of dikes confinning liquid wastes.

(2) Evidence of leaching liquid from area of confinement and estimated size of affected area. (Show affected area on a sketch.)

(3) Odor: presence or absence, characterization, source, and distance of travel.

(4) Evidence of low points in dike resulting in overflow of water other than described in Report of Waste Discharge. Low points shall be filled immediately with appropriate fill material.

III. Marina Water

Station	Description
M-1	At a point in the westerly section of the West Basin of the Marina.
M-2	At a point in the easterly section of the West Basin of the Marina.
M-3	At a point in the westerly section of the East Basin of the Marina.
M-4	At a point in the easterly section of the East Basin of the Marina.

Reference Station

Station	Description
R-1	At a point in San Francisco Bay approximately 500 feet from the main entrance to the Marina and perpendicular to the breakwater.

The schedule of sampling and analysis shall be that given as Table I.

C. REPORTS TO BE FILED WITH THE REGIONAL BOARD

1. Violations of Requirements

In the event the discharger is unable to comply with the conditions of the waste discharge requirements and prohibitions due to:

(a) Maintenance work, power failure, or breakdown of waste treatment equipment, or

(b) Accidents caused by human error or negligence, or

(c) Other causes, such as acts of nature.

The discharger shall notify the Regional Board Office by telephone as soon as he or his agents have knowledge of the incident and confirm this notification in writing within two weeks of the telephone notification. The written report shall include pertinent information explaining reasons for the non-compliance and shall indicate what steps were taken to prevent the problem from recurring.

2. Self-Monitoring Reports

Written reports shall be filed regularly for each calendar month (unless specified otherwise) by the fifteenth day of the following month. The reports shall be in letter form, and shall specifically cover each point in the Monitoring Program (Part B). Any violations shall be clearly identified, and actions taken or planned for correcting violations shall be included.

The letter shall contain a statement by a City official, under penalty of perjury, that to the best of the signer's knowledge, the report is true and correct.

I, Fred H. Dierker, Executive Officer, hereby certify that the foregoing Self-Monitoring Program:

1. Has been developed in accordance with the procedures set forth in this Regional Board's Resolution No. 73-16 in order to obtain data and document compliance with waste discharge requirements established in Regional Board's Order No. 77-19.

2. Has been ordered by the Executive Officer on March 15, 1977, and becomes effective upon commencement of dredging operation and completion of the Marina.

3. May be reviewed at any time subsequent to the effective date upon written notice from the Executive Officer or request from the discharger and revisions will be ordered by the Executive Officer.

FRED H. DIERKER
Executive Officer

Attachement:
Table I

TABLE I

SCHEDULE FOR SAMPLING, MEASUREMENTS, AND ANALYSES

SAMPLING STATIONS	M-1 to M-4 & R-1								
TYPE OF SAMPLES	G	G	BS						
Date of Sample	Mar 2 Sept30	Oct 1 Mar 1							
Total Coliform (MPN/100 ml)	2W	M							
Chlorophyll "a" (mg/l)	2W	M							
Dissolved Oxygen (mg/l)	2W	M							
Oil & Grease (mg/l)	M	3M	Q						
Fecal Coliform (MPN/100 ml)	2W	M							
Copper (mg/l)			Q						

LEGEND FOR TABLE

TYPES OF SAMPLES

G = grab sample
Cont = continuous sampling
BS = bottom sediment sample
O = observation

FREQUENCY OF SAMPLES

E = each occurrence
2W = every 2 weeks
M = monthly
3M = every 3 months
Q = quarterly, once in March, June, Sept., and December

SUBCHAPTER 20. STANDARDS FOR THE REMOVAL OF SEWAGE FROM VESSELS

Detailed Analysis

Article 1. General

2815. Authority and Purpose. The standards contained herein are prescribed by the State Board pursuant to Chapter 6 (commencing with Section 775) of Division 3 of the Harbors and Navigation Code. The purpose of these standards is to establish criteria for the design, construction, operation, and maintenance of pumpout facilities for the removal of sewage from vessel sewage retention devices.

NOTE: Authority cited: Section 1058, Water Code. Reference: Chapter 6 (commencing with Section 775), Division 3, Harbors and Navigation Code.

History: 1. New Subchapter 20 (Sections 2815–2829, not consecutive) filed 9-3-76; effective thirtieth day thereafter (Register 76, No. 36).

2816. Definitions. The following definitions shall apply to this subchapter.

(a) "Pumpout facility" means any facility or other means used to transfer sewage from a vessel sewage retention device aboard a vessel to storage and/or disposal facilities.

(b) "Vessel" means every watercraft or other contrivance used or capable of being used as a means of transportation on the waters of the State, excepting foreign and domestic vessels engaged in interstate or foreign commerce upon the waters of the State.

(c) "Sewage" means human body wastes and wastes from toilets and other receptacles intended to receive or retain body wastes.

(d) "Waters of the State" means any water surface or underground, including saline waters, within the boundaries of the State.

2817. **Application of Regulations.** It is the intent of the state board that these regulations shall apply to both existing pumpout facilities and to pumpout facilities hereafter constructed.

Article 2. Design and Construction

2819. **Pumpout Facility Design and Use.** The pumpout facility must be designed or utilized such that all sewage transferred from vessel marine sanitation devices is stored or disposed of in a manner approved by the appropriate Regional Water Quality Control Board and in accordance with local ordinances.

2820. **Prevention of Leakage and Spillage.** All pumpout facilities shall be designed and constructed in such a manner that there shall be no leakage or spillage of sewage.

2821. **Pump Design Requirements.** Pumps provided at the pumpout facility for the transfer of waste from vessel to the pumpout facility and from the pumpout facility to the disposal system shall:

(a) Be of self-priming and non-clogging design.

(b) Be of sufficient size and capacity to complete the transfer operation in a reasonable amount of time when operating against the maximum anticipated head.

(c) Be designed and installed to prevent leakage or spillage.

(d) Be designed and installed to meet all safety requirements.

(e) Be constructed of corrosion-resistant material.

The pumps may be either of fixed or portable type installation.

2822. **Storage Tank Design Requirements.** Storage tanks used to store pumpout waste shall:

(a) Be designed and constructed to allow for complete emptying of contents into a disposal system or waste haulers tank.

(b) Be equipped with a means of determining the amount of sewage in the tank.

(c) Be equipped with a means of preventing backflow from the storage tank into the pumpout system.

(d) Be designed and constructed to prevent overflow or spillage.

(e) Be designed and installed to protect against a 1-in-100 year flood.

(f) Be constructed of material capable of withstanding solar radiation and chemical action of freshwater, saltwater, chemical additives and sewage without excessive deterioration.

(g) Be designed and constructed such that the sewage enters the tank above maximum storage level.

2823. **Design Requirements for Piping and Hoses.** All piping/hosing used in the design and construction of a pumpout system shall:

(a) Be designed to withstand any pumping pressure or vacuum encountered without leakage; and

(b) Be constructed of material capable of withstanding solar radiation and chemical action of freshwater, saltwater, chemical additives, and sewage without excessive deterioration.

All fittings shall be of corrosion-resistant material and shall be so constructed and installed as to ensure a water-tight seal. All pumpout systems shall be designed and constructed to have a minimum capability of pumping out vessel marine sanitation devices having 1½-inch fittings. The system shall be designed and constructed to prevent leakage when transferring or when the system is disconnected. This would normally require a minimum of four valves; one on each side of the pump, plus one at the storage tank, and one at the vessel holding tank connection.

2824. Pumpout Facility Water Supply Required. The pumpout facility shall be designed and constructed such that a water supply is available at appropriate locations for flushing and cleaning of vessel holding tanks and storage tanks. The water supply shall be protected against back-siphonage of waste into the water system by a backflow prevention device meeting the standards established by the State Board of Public Health in Group 4 (commencing with Section 7583), Subchapter 1, Chapter 5, Part 1 of Title 17 of the California Administrative Code.

Article 3. Operation and Maintenance

2827. Operation and Maintenance Instructions. A set of operation and maintenance instructions shall be prepared and used in the operation of the pumpout facility. The operation and maintenance instructions shall be available for inspection at the pumpout facility and if found to be deficient by the staff of the Regional Board, the instructions shall be corrected within 30 days.

(a) The operation instructions shall have a detailed explanation of valve positions when the system is transferring sewage and when the system is not being used.

(b) The operation and maintenance instructions shall include methods which will be used to isolate portions of the system for maintenance and repair.

2828. Prevention of Leakage and Spillage. All pumpout facilities shall be operated and maintained in such a manner that there shall be no leakage or spillage of sewage.

2829. Inspection and Maintenance Requirements. The entire pumpout system shall be inspected by the operator at regular intervals not exceeding six months and any worn components replaced. The Regional Board staff shall inspect the facility at regular intervals not to exceed one year.